

STANDARD INFORMATION

Standard: UL 817

Standard ID: Cord Sets and Power-Supply Cords [UL 817:2015 Ed.12+R:15Feb2021]

Previous Standard ID: Cord Sets and Power-Supply Cords [UL 817:2015 Ed.12+R:20Aug2018]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **February 15, 2023**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard.

Overview of Changes: Addition of integral latching mechanisms on cord connectors. Specific details of new/revise requirements are found in table below.

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown lined-out below.</i>
8	Info	Cord Connectors
		<i>New section added;</i>
8.7		Latching Type Cord Connectors
8.7.1		A cord connector of the 1-15R, 5-15R, 5-20R, 6-15R, or 6-20R configuration is permitted to be provided with an integral latching mechanism.
8.7.2		A cord connector with an integral latching mechanism shall be subjected to the applicable tests in Tests for Cord Connectors, Section 14, with the mechanism in place and defeated. In addition, a cord connector provided with a manual or spring-activated latching mechanism shall be subjected to the Latching Mechanism Tests, Section 19B.
8.7.3		A spring employed in a cord connector with an integral latching mechanism shall be copper or copper alloy, of a corrosion-resistant steel (stainless), or protected against corrosion by metallic plating or other metal coating.
9	Info	Other Components
9.11	Info	Cord restraint devices
9.11.3		Cord restraint devices shall not be integral with or permanently attached to a cord set or outlet device, <u>but are considered separate add-on devices.</u> A cord connector <u>employing latching mechanism shall comply with the requirements as described in Latching Type Cord Connectors, 8.7.</u>
		<i>New section added;</i>
19B		Latching Mechanism Tests
19B.1		Tests for manually- or spring-activated latching cord connectors
19B.1.1		A cord connector of the 1-15R, 5-15R, 5-20R, 6-15R, or 6-20R configurations, employing a manually- or spring-actuated latching mechanism for locking a mated attachment plug in place after its blades have been inserted into the female contacts shall comply with the Pull test, 19B.2.
19B.2		Pull test
		After completion of this test:
19B.2.1		a) There shall not be any damage to the cord connectors or the blades of the attachment plugs or other evidence of increased risk of injury or electric shock; b) The latching means shall remain functional;



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		<p>c) There shall not be any loosening of the plug blades nor displacement of the plugs blades at the attachment plug face exceeding 2.4 mm (3/32 in), nor compression of the folded blades to less than 1.40 mm (0.055 in);</p> <p>d) The attachment plug shall be capable of being inserted into a standard mating receptacle; and e). There shall not be any damage, arcing, or dielectric breakdown during application of the test potential.</p>																								
19B.2.2		<p>Previously untested devices and mating plugs are to be used. The mating plugs are to have the configurations shown in Table 19B.1. Three devices are to be tested using attachment plugs with rigidly mounted solid blades with standard detent holes. Three devices are to be tested using attachment plugs with folded blades and standard detent holes. With the device firmly secured in place, a mating attachment plug is to be inserted into the device and the latching mechanism activated to lock the plug in place. A pull of 20 lbf (89 N) in a direction perpendicular to the plane of the face of the cord connector and tending to withdraw the plug from the device is then to be applied to the plug and the plug shall not be withdrawn by the force. The force is then to be removed from the plug, the latching mechanism de-activated to release the plug, and the plug removed from the cord connector. This is to be repeated for a total of 250 cycles.</p>																								
Mating plug configurations for pull testing																										
Table 19B.1		<table border="1"> <thead> <tr> <th>Device under test</th> <th>Mating plug</th> <th>Number of devices tested</th> </tr> </thead> <tbody> <tr> <td>1-15R</td> <td>1-15P</td> <td>6</td> </tr> <tr> <td>5-15R</td> <td>1-15P</td> <td>6</td> </tr> <tr> <td>5-20R^a</td> <td>5-15P</td> <td>3</td> </tr> <tr> <td></td> <td>5-20P</td> <td>3</td> </tr> <tr> <td>6-15R</td> <td>6-15P</td> <td>6</td> </tr> <tr> <td>6-20R^a</td> <td>6-15P</td> <td>3</td> </tr> <tr> <td></td> <td>6-20P</td> <td>3</td> </tr> </tbody> </table> <p>^a If the construction will accept and latch both the 15 A and 20 A configurations, then 3 units of each shall be tested. If the construction will accept or latch only 20 A configuration, then 6 units of each shall be tested.</p>	Device under test	Mating plug	Number of devices tested	1-15R	1-15P	6	5-15R	1-15P	6	5-20R ^a	5-15P	3		5-20P	3	6-15R	6-15P	6	6-20R ^a	6-15P	3		6-20P	3
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19B.2.3		Each device shall then be subjected to the Retention of Blades Test, 14.3.																								
19B.2.4		Each device shall then be subjected to the Dielectric voltage-withstand test, 11.4, except the test potential shall be 1000 V plus twice the rated voltage.																								
	Info	MARKING																								
20	Info	General																								



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
20.8		A cord connector provided with a latching mechanism that is part of an extension cord set in accordance with Latching Type Cord Connectors, 8.7, shall be marked with a statement instructing the user how to disengage the latching mechanism so that a mated attachment plug can be removed from the cord connector. The marking shall be within 50.8 mm (2 in) of the cord connector body.
